

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 06172859 A

(43) Date of publication of application: 21.06.1994

(51) Int. Cl

C21D 8/10

C21D 9/08, C22C 38/00, C22C 38/32

(21) Application number:

04325202

(22) Date of filing:

04.12.1992

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**(54) PRODUCTION OF HIGH STRENGTH STEEL
TUBE EXCELLENT IN SULFIDE STRESS
CORROSION CRACKING RESISTANCE**

(57) Abstract:

PURPOSE: To obtain the steel tube by directly working a continuously cast billet into a seamless steel tube, combinedly applying direct hardening to the steel tube, and specifying the composition of the steel tube.

CONSTITUTION: A billet having a composition which consists of, by weight, 0.15-0.4% C, 0.1-1% Si, 0.3-1% Mn, 0.1-1.5% Cr, 0.1-1% Mo, $\leq 0.015\%$ P, $\leq 0.005\%$ S, 0.0005-0.003% B, 0.01-0.1% Al, 0.01-0.03% Ti, 0.003-0.01% N, and the balance Fe and where, when a PGS value represented by equation $PGS = (0.3Ti + 0.05Al)/N$ is determined, the contents of Al, Ti, and N are regulated so that PGS becomes 1.0 to 1.5 is prepared. This billet is worked at a temp. not lower than the Ac_3 transformation point into a seamless steel tube, which is subjected, without delay, to water quenching and to

tempering at a temp. not higher than the Ac_1 transformation point. Moreover, Nb and/or V can further be incorporated by 0.01-0.05% into the above composition. By this method, the seamless steel tube for oil well and gas well use, excellent in SSCC resistance and having strength as high as $\geq 75\text{kg/mm}^2$ yield point strength can be obtained.

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